

REMARKS

Claims 1-3, 5, 7, and 9-17 are pending with claims 1 and 13 being independent. By this amendment, claims 1-3, 5, 7, 9, and 10 have been amended, claims 6 and 8 have been cancelled, and claims 14-17 have been added. Claims 12 and 13 were previously withdrawn, leaving claims 1-3, 5, 7, 9-11, and 14-17 under consideration, with claim 1 being independent. As discussed in more detail below, support for the amendments and the new claims may be found in the application at, for example, paragraphs [0018], [0021], [0023], [0025], [0026] and [0028], and Table 3. No new matter has been introduced.

CLAIM OBJECTIONS

Claims 2 and 3 were objected to under 37 C.F.R. 1.75(c) as being in improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 2 has been amended to recite in part: “wherein the catalyst composition is capable of removing organosilicon compounds from the exhaust gas.” Claim 3 has been amended to recite in part: “wherein the catalyst composition is capable of removing organic silicone compounds from the exhaust gas.” Thus, amended claims 2 and 3 further limit the subject matter of claim 1.

Applicants respectfully request removal of the objection to claims 2 and 3.

35 U.S.C. § 112 REJECTIONS

Claims 8 and 9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 has been cancelled. The features of claim 8 have been included in amended claim 1. In amended claim 1, the features of claim 8 have been clarified according to paragraph [0023] of the application.

Claim 9 has been amended for clarification according to paragraphs [0025] and [0026] of the application.

Applicants believe that amended claim 1, including features of original claim 8, particularly points out and distinctly claims the subject matter which applicant regards as the invention. Applicants also respectfully request removal of the 35 U.S.C. § 112, second paragraph, rejection of claim 9.

35 U.S.C. § 102 REJECTION OVER LACHMAN

Claims 1-3 and 5-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,292,911 to Lachman.

Independent claim 1 has been amended to include features of claim 8 (as clarified by paragraph [0023] of the application) and claim 6, and to recite the amount of precious metal carried on the alumina particles and the zeolite particles, as described in paragraphs [0018] and [0028] of the application.

Amended claim 1 recites in part: “the amount of precious metal carried on the zeolite particles is in the range of 0.5 wt.% to 10 wt.% of the zeolite particles....” By contrast, Lachman states: “By impregnation the noble metal precursor species is introduced on the high surface area alumina. Interestingly and fortuitously, the noble metal precursors do not substantially site on the already present zeolite. This advantageous result provides a segregated system....” Lachman, col. 2, ll. 54-58. Thus, Lachman teaches that the noble metal precursors do not substantially site on the zeolite. Furthermore, Lachman does not teach or even suggest that the amount of precious metal carried on the zeolite particles is in the range of 0.5 wt.% to 10 wt.% of the zeolite particles.

Amended claim 1 also recites in part: “wherein the zeolite particles are capable of absorbing 0.6 to 1.5 mmol NH₃ at 160°C to 550°C per gram of the zeolite particles.” Lachman, however, does not teach this element of claim 1.

A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. Lachman does not teach each and every element of claim 1. Therefore, claim 1 and its dependent claims are not anticipated by Lachman.

Regarding claims 2 and 3, Lachman does not teach a catalyst composition capable of removing organosilicon compounds or organic silicone compounds from exhaust gas, as recited in claims 2 and 3, respectively. As such, claims 2 and 3 are separately patentable.

Regarding claims 9 and 11, the Examiner has not addressed all of the limitations in the claims. As a result, the Examiner has failed to prove a prima facie case of anticipation in rejecting claims 9 and 11.

For at least the reasons discussed above, applicants respectfully request withdrawal of the § 102(b) rejection of claims 1-3, 5, 7, and 9-11 over Lachman.

35 U.S.C. § 102 REJECTION OVER YAVUZ

Claims 1-3 and 5-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,248,684 to Yavuz.

Yavuz does not teach a catalyst composition comprising alumina particles having a precious metal carried thereon, and zeolite particles having a precious metal carried thereon, wherein the amount of precious metal carried on the alumina particles is in the range of 0.5 wt.% to 10 wt.% of the alumina particles, and the amount of precious metal carried on the zeolite particles is in the range of 0.5 wt.% to 10 wt.% of the zeolite particles, as recited in claim 1.

Yavuz does not appear to include an example with alumina particles having a precious metal carried thereon and zeolite particles having a precious metal carried thereon. Furthermore, the examples in Yavuz do not teach precious metals on alumina particles and zeolite particles in the claimed weight ranges for a single catalyst composition. For catalyst compositions of Yavuz that include either zeolite (Example 2A: Fe-Beta zeolite with 0.029 wt% platinum) or alumina (Example 2B: alumina with 0.138 wt% platinum), the precious metal content is not within the range of claim 1.

In addition, Yavuz does not teach zeolite particles capable of absorbing 0.6 to 1.5 mmol NH₃ at 160°C to 550°C per gram of the zeolite particles, as also recited in claim 1.

A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. Yavuz does not teach each and every element of claim 1. As such, claim 1 and its dependent claims are not anticipated by Yavuz.

Regarding claims 2 and 3, Yavuz does not teach a catalyst composition capable of removing organosilicon compounds or organic silicone compounds from exhaust gas, as recited in claims 2 and 3, respectively. As such, claims 2 and 3 are separately patentable.

Regarding claims 9 and 11, the Examiner has not addressed all of the limitations in the claims. As a result, the Examiner has failed to prove a prima facie case of anticipation in rejecting claims 9 and 11.

For at least the reasons discussed above, applicants respectfully request withdrawal of the § 102(b) rejection of claims 1-3, 5, 7, and 9-11 over Yavuz.

35 U.S.C. § 102 REJECTION OVER KHARAS

Claims 1-3 and 5-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2001/0053745 to Kharas.

Kharas does not teach a catalyst composition comprising alumina particles having a precious metal carried thereon, and zeolite particles having a precious metal carried thereon, where the amount of precious metal carried on the alumina particles is in the range of 0.5 wt.% to 10 wt.% of the alumina particles, and the amount of precious metal carried on the zeolite particles is in the range of 0.5 wt.% to 10 wt.% of the zeolite particles, as recited in claim 1. In addition, Kharas does not show the elements of claim 1 at the level of detail recited in claim 1. For example, In Table 1 of Kharas, a total percentage of platinum is given for catalyst compositions. However, the amount of precious metal carried on the alumina particles and the amount of precious metal carried on the zeolite particles are not given separately.

In addition, Kharas does not teach zeolite particles capable of absorbing 0.6 to 1.5 mmol NH₃ at 160°C to 550°C per gram of the zeolite particles, as also recited in claim 1.

A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. Kharas does not teach each and every element of claim 1. As such, claim 1 and its dependent claims are not anticipated by Kharas.

Regarding claims 2 and 3, Kharas does not teach a catalyst composition capable of removing organosilicon compounds or organic silicone compounds from exhaust gas, as recited in claims 2 and 3, respectively. As such, claims 2 and 3 are separately patentable.

Regarding claims 9 and 11, the Examiner has not addressed all of the limitations in the claim. As a result, the Examiner has failed to prove a prima facie case of anticipation in rejecting claims 9 and 11.

For at least the reasons discussed above, applicants respectfully request withdrawal of the § 102(b) rejection of claims 1-3, 5, 7, and 9-11 over Kharas.

NEW CLAIMS

New claim 14 recites in part: “wherein the zeolite particles are selected from the group consisting of HY zeolites, X zeolites, A zeolites, and any combination thereof.” Support for claim 14 is found in paragraph [0021] of the Application.

New claim 15 depends from claim 14, and recites in part: “wherein the zeolite particles comprise said HY zeolites, and said HY zeolites have a $\text{SiO}_2/\text{Al}_2\text{O}_3$ molar ratio in the range of 5 to 50.” Support for claim 15 is found in paragraph [0024] of the Application.

New claim 16 recites in part: “wherein the catalyst composition is capable of removing methyl ethyl ketone from the exhaust gas at a removal rate of at least 85% for at least 400 minutes.” Support for claim 16 is found in Table 3 of the Application.

New claim 17 recites in part: “wherein the catalyst composition is capable of removing the silicon compound from the exhaust gas.”

Lachman, Yavuz, and Khakas do not teach each the elements of claims 14-17, either separately or in combination with claim 1. As such, new claims 14-17 are patentable over the cited art.

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CONCLUSIONS

All claims in the application are now in condition for allowance.

Please apply any other charges or credits to Deposit Account No. 06-1050, referencing
Attorney Docket No. 11672-0005US1.

Respectfully submitted,

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